

ARCS PROCEDURE:	DARWIN MONTHLY ROUNDS CHECKLIST	PRO(ARCS)-043.004
Author: D. Reass, B. Perkins		13 February 2004 Page 1 of 6

ARCS VANS

See Procedure PRO(ARCS)-007

#	Question	Yes	No
1.	Inspect VAN exteriors for chipping and peeling of paint, or rust; are they in good condition?		
2.	Inspect the drain hose for dehumidifier in each VAN; Is it free of blockage?		

GENSET

See Procedure PRO(GEN)-004

The following 4 steps are visual inspections and are performed weekly and without the need of performing the GENSET shut down procedure.

Note: Beware that generator could possibly start up should a grid utility power failure occur during inspection.

#	Question	Yes	No
1.	Inspect vibration mounts; are they secure and tight?		
2.	Inspect battery posts; are they clean and free of any corrosion or electrolyte seepage? (See PRO(GEN)-004. to clean.)		
3.	Check fluid level in batteries in the U-VAN, and RECORD LEVEL ON GENSET LOG and Weekly Fax Sheet comments; if low, fill to bottom of the fill tubes with rain water, and record on GENSET LOG and Weekly Fax Sheet comments; is the fluid level now correct?		
4.	Are the battery caps secured and returned to normal configuration?		

SMET

See Procedure PRO(SMET)-001

#	Question	Yes	No
1.	Remove the T/RH probe from the aspirated shield and replace the membrane filter; is the replacement completed successfully?		
2.	Clean the ORG lens gently using the optics brush (see PRO(SMET)-001); was this completed successfully and is the lens clean?		

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SKYRAD – PSP (unshaded)

#	Question	Yes	No
1.	Following PRO(PSP)-001, check the PSP level bubbles; is the PSP level? <i>If NO, follow the procedure to level the instrument.</i>		
2.	Following PRO(PSP)-002, change the PSP desiccant. Are the desiccant replacement steps completed successfully? Note any comments in the SDL Daily Rounds comments field.		

SKYRAD – PSP (B/W) (shaded)

#	Question	Yes	No
1.	Following PRO(PSP)-001, check the PSP level bubbles; is the PSP level? <i>If NO, follow the procedure to level the instrument.</i>		
2.	Following PRO(PSP)-002, change the PSP desiccant. Are the desiccant replacement steps completed successfully? Note any comments in the SDL Daily Rounds comments field.		

SKYRAD – PIR (shaded #1)

#	Question	Yes	No
1.	Following PRO(PIR)-001, check the PIR level bubbles; is the PIR level? <i>If NO, follow the procedure to level the instrument.</i>		
2.	Following PRO(PIR)-002, change the PIR desiccant. Are the desiccant replacement steps completed successfully? Note any comments in the SDL daily rounds comments field.		

SKYRAD – PIR (shaded #2)

#	Question	Yes	No
1.	Following PRO(PIR)-001, check the PIR level bubbles; is the PIR level? <i>If NO, follow the procedure to level the instrument.</i>		
2.	Following PRO(PIR)-002, change the PIR desiccant. Are the desiccant replacement steps completed successfully? Note any comments in the SDL daily rounds comments field.		

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GNDRAD (on MET tower) – PSP (down-looking)

#	Question	Yes	No
1.	Was the dome clean of debris, water, or water spots prior to daily cleaning?		
2.	Is the dome free of internal condensation?		
3.	Is the dome free of scratches or pits?		
4.	Is the dome free of cracks?		
5.	Are all cables and cable connectors securely attached and free of damage?		
6.	Following PRO(PSP)-002, change the PSP desiccant. Are the desiccant replacement steps completed successfully? Note any comments in the SDL Daily Rounds comments field.		

GNDRAD (on MET tower) – PIR (down-looking)

#	Question	Yes	No
1.	Was the dome clean of debris, water, or water spots prior to daily cleaning?		
2.	Is the dome free of internal condensation?		
3.	Is the dome free of scratches or pits?		
4.	Is the dome free of cracks?		
5.	Are all cables and cable connectors securely attached and free of damage?		
6.	Following PRO(PIR)-002, change the PIR desiccant. Are the desiccant replacement steps completed successfully? Note any comments in the SDL daily rounds comments field.		

GNDRAD (on MET tower) – IRT (down-looking)

#	Question	Yes	No
1.	Is lens clean and dry? If no, see Procedure PRO(IRT)-001.		
2.	Is the lens free of any internal condensation?		
3.	Are all cables and cable connectors securely attached and free of damage?		

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STAND ALONE INSTRUMENTS (inside I-Van) – Millimeter Cloud Radar (MMCR)

Change the data tapes one a month on the DMS computer.

- Go to the DMS Computer. On the DMS computer monitor, double click on the “Terminal” icon. Type **archiver -u m** and press the ENTER key. (Make sure there is a space between “r” and “-” and between “u” and “m”.) This will rewind tape and eject it. Open the small door on the DMS computer and take out the tape. Write the current date as the “out” date on the tape and on the tape case.
- Insert the tape cleaner cartridge into the tape unit. This will clean the unit and eject itself after a few minutes. Indicate a usage mark on the tape; after 4 cleanings, throw away the cartridge.
- Get a new tape and write the current date as the “in” date on the tape. Insert the new tape into the DMS tape drive and wait until the tape light stops blinking. Close the door.
- Type “archiver -n m” and press the ENTER key. (Make sure there is a space between “r” and “-” and between “n” and “m”.) A series of messages will appear on the screen.

#	Question	Yes	No
1.	Was the data tape removed, labeled, and put in MMCR “Media to be MAILED ” container?		
2.	Was a new data tape successfully labeled and inserted into the tape drive?		

STAND ALONE INSTRUMENTS (outside I-Van) – Millimeter Cloud Radar (MMCR) and Micropulse Lidar (MPL)

#	Question	Yes	No
1.	Turn the TWT Amplifier (TWTA) OFF (see PRO(MMCR)-006); climb on the top of the I-Van. Are the Radome tension springs fastened and the cover tight? <i>Turn TWTA ON again when completed inspection; see PRO(MMCR)-004.</i>		
2.	Climb on top of the I-Van. Is the MPL window clean and not leaking? <i>If NO, see PRO(MPL)-002.</i>		
3.	Climb down off the roof. Turn the TWT Amplifier ON (see PRO(MMCR)-006). Did the TWT Amplifier start and the red light start flashing?		
4.	On the TWTA, is the “Remote” LED lit?		
5.	Is there corrosion or damage on the external components of the MMCR? Inspect the MMCR external components; Are they free of any damage or corrosion?		

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UTILITY VAN – Generator

See Procedure PRO(GEN)-004

NOTE: IF GRID POWER HAS BEEN DOWN 2 DAYS OR MORE THIS WEEK, NOTE THIS IN THE SITE DATA LOG'S DAILY ROUNDS COMMENTS SECTION.

#	Question	Yes	No
1.	Are all vents in the OPEN position, secured, and rotating freely (oil if required)?		
2.	Are all fuel line fittings associated within U-VAN GENSET area and the fuel filter connections dry and free of leakage?		
3.	At the Electronic Control Module, is the battery voltage level 24V or greater?		
4.	Check oil fluid level. Is the level between the marks on the dipstick? (This level can be checked while the generator is running or at rest. The dipstick is located on front right engine area.) Add oil if necessary. Record level on daily fax sheet.		
5.	Check the diesel fuel level on the external fuel tank. Does the reading indicate tank is more than 1/4 full? Record level on Daily Fax Sheet.		
6.	Check the diesel fuel level at the Day Tank (a full reading should be indicated by the red float-type gauge). Is fuel level on gauge above half? Record level on Daily Fax Sheet.		
7.	Are the dipstick and fuel openings secured and returned to normal configuration?		
View the display on the Electronic Console Module. Record the number of hours run and enter into the Site Data Log daily rounds GENSET Run time hours field			

TOTAL SKY IMAGER – TSI

#	Question	Yes	No
1.	Has the TSI mirror been cleaned and waxed? Clean and then wax the TSI mirror; Was this completed successfully? (See PRO(TSI)-004)		
2.	Has the TSI been power cycled to reboot the CPU? Power cycle the TSI to reboot its computer; Was this completed successfully? (See PRO(TSI)-005)		

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ROUTINE DATA MEDIA MAILING

There are several types of media “containers” in the Vans for storing data media: 1) “Media to be ARCHIVED” container for media with data to be stored; 2) “Media to be MAILED” container for media with data to be shipped; and 3) “BLANK media” container with new, blank media to replace data full media that have been removed.

Removable Hard Drive (HD) Mailing Procedure

- Upon receipt of a black plastic HD shipping case, put newly arrived HDs in the “BLANK Media” container (in the D-Van) on the bottom of the pile of HDs (the “IN” and “OUT” dates should be blank). Store the HD shipping case in the D-Van until it is needed for a return mailing.
- Weekly check the D-Van “Media to be MAILED” container. If there are HDs in the container take the hard drives and all other media put them in a shipping case and mail them to the USA. (Note that they should both be the same color and they should have the “IN” and “OUT” date filled in.) If no hard drives have been removed during the week hold all media to ship until there is a hard drive that needs mailing.

#	Question	Yes	No
1.	In the D-Van check the “Media to be MAILED” container. If there are HDs (and all other media) in the container, put them in the black plastic HD shipping case, and mail them to the USA (note that they should both be the same color and they should have the “IN” and “OUT” date filled in). Have you collected and mailed the D-Van “Media to be MAILED”?		
2.	Have you collected data tapes from the MMCR “Media to be MAILED” container in the I-Van if there are any? (They should have “IN” and “OUT” dates labeled on them).		
3.	If there is any media to be mailed, have you packed and mailed all the data media to PNNL?		
4.	If there is any media to be mailed, have you completed a shipping form?		

Complete a shipping form and mail using DHL to:

Attn: Karen Creel
Phone: 509-375-2428
ARCS DMF
Pacific Northwest National Laboratory
3350 Q. Street
ISB 1, Room 521, MS K7-28
Richland, WA, U.S.A. 99352

Label all tapes, disks, and tape cases as follows:

Darwin (instrument name)
In: (Date)
Out: (Date)